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From: "Dragos, Paul M" <dragosp@BATTELLE.ORG>

To: Dave Dickerson/R1/USEPA/US@EPA

Copy To: "Dahlen, Deirdre T" <DahlenD@BATTELLE.ORG>; "Leitch, Robert A NAE" <Robert.A.Leitch@usace.army.mil>

Delivered Date: 09/01/2009 09:41 AM EDT

Subject: RE: Plume Tracking Report

Dave:

Yes, any red or yellow visible at the mudline is actually the bottom echo. The location of the bottom is not always perceived accurately by the system software because of the strength of the bottom echo compared to the turbidity signal and sometimes because of sharp changes in the bottom depth.

Paul

-----Original Message-----
From: dickerson.dave@epamail.epa.gov [mailto:dickerson.dave@epamail.epa.gov]
Sent: Friday, August 28, 2009 3:56 PM
To: Dragos, Paul M
Cc: Dahlen, Deirdre T; Leitch, Robert A NAE
Subject: Re: Plume Tracking Report

thanks Paul - this looks great at first glance. Is it normal to see some turbidity with this approach right at the sea floor under ambient conditions (i.e. fluff layer)? I.e., can we discount the small areas outside the CAD where we sometimes see "red" at the mudline as "normal" or not?

Dave

"Dragos, Paul M" <dragosp@BATTELLE.ORG> 08/28/2009 03:37 PM

To: "Leitch, Robert A NAE" <Robert.A.Leitch@usace.army.mil>, Dave Dickerson/R1/USEPA/US@EPA

cc

"Dahlen, Deirdre T"
<DahlenD@BATTELLE.ORG>
Subject
Plume Tracking Report

Dave & Bob:

The attached document contains the plume figures for the May 20th plume tracking survey in and around the CAD cell. The figures should give you a idea of the plume intensity, extent, and duration.

The attachment includes are a series of figures from the time of the dredged material release to nearly 90 minutes after the release. Each figure shows two concurrent boat transects over a 2-4 min interval: one boat inside the CAD cell and silt curtain and the other outside. Accompanying the transect diagram are the water column turbidity slices that correspond to the boat transects. These are vertical slices through the water column showing the turbidity, in NTU, that was measured acoustically from near-surface to bottom as the boat moved along the transect shown.

The figures show the evolution of the plume inside the CAD cell and the absence (or near absence) of any plume outside the cell. The other plumes we tracked look similar.

We also have a set of figures calibrated to TSS (mg/L) that we will include in the Tech Memo but they are essentially the same with a different color scale. We have also worked up plan-view contour plots, but because the plume is evolving rapidly over time and space, the contour plots are under sampled and don’t present well. We may still revisited them.

Please let me know if you have any comments.
Regards,
Paul

Paul Dragos
Senior Research Scientist
Battelle
397 Washington St.
Duxbury, MA 02332
(781) 952-5357 (voice)
(614) 458-6880 (fax)
dragosp@battelle.org

[attachment "May20Plume.docx" deleted by Dave Dickerson/R1/USEPA/US]